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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,500	11/30/2000	Patric Heide	051480-5032	8866

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EXAMINER	
BANGACHON, WILLIAM L	
ART UNIT	**PAPER NUMBER**
2635	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/725,500	HEIDE ET AL.	
	Examiner	Art Unit	
	William Bangachon	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/2/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection. In this case, applicant's arguments have clarified the claims as originally presented.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-11 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,809,629. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are generally broader than the claims in the cited patent. **Broader claims in a later application constitute obvious double patenting of narrow claims in an issued patent**. See *In re Van Ornum and Stang*, 214, USPQ

761, 766, and 767 (CCPA) (the court sustained an obvious double patenting rejection of generic claims in a continuation application over narrower species claims in an issued patent); *In re Vogel*, 164 USPQ 619, 622, and 623 (CCPA 1970) (generic application claim specifying "meat" is obvious double patenting of narrow patent claim specifying "pork"). In this case, independent claim 1 of the instant invention is broader than claim 1 of USP 629 and independent claim 7 of the instant invention is broader than claim 9 of USP 629, and therefore not patentably distinct. Claims 2-6 and 8-11 are dependent claims and therefore rejected for the same reasons.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-4, 7-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6,236,333 (King) in view of USP 6,353,776 (Röhrl et al).

In claims 1 and 2, King discloses an anti-theft protection system for a motor vehicle {see whole document}, the anti-theft protection system comprising:

a transmitting and receiving unit (20) adapted to be arranged on the motor vehicle, the transmitting and receiving unit transmitting a transmitted signal that is modulated over a broad bandwidth {col. 2, lines 33-35; col. 4, lines 17-22};

a code transmitter (22) adapted to be portable with respect to the motor vehicle, the code transmitter transmitting an echo signal at least in response to receiving the transmitted signal {col. 2, lines 16-26}, wherein the echo signal includes an authorization code {col. 1, lines 54-56; col. 3, lines 14-18}; and

an evaluation unit/controller (40) operable to evaluate the echo signal to verify the authorization code supplied from the code transmitter (22) if a distance between the code transmitter and the transmitting and receiving unit (20) is determined to be above a threshold value (50) {col. 1, lines 44-58; col. 2, line 43-col. 3, line 55}.

Although King does not disclose expressly **"determining a distance between the code transmitter and the receiving unit based on the echo signal and evaluating the echo signal to verify the authorization code supplied from the code transmitter"**, these claim limitations are conventional as evidenced by Röhrl et al. Röhrl et al teach of measuring the distance between the code transmitter and the receiving

unit based on the echo signal for the purpose of improving the security of a vehicle {Röhrl et al, col. 3, lines 5-12, col. 7, lines 36-45}. Based on a threshold value, execution of the associated vehicle functions can be effected {Röhrl et al, col. 1, lines 56-65}. Obviously, these features are desirable in the system of King because this will prevent other (unauthorized) code transmitters from executing vehicle functions.

With regards to claims 3 and 4, King does not disclose expressly a plurality of the transmitting and receiving units (42) adapted to be distributed on the motor vehicle. However, as an alternative, King discloses that "controllers can be installed in each sensor 30a-e to generate distance and scenario profiling" {col. 2, lines 59-61}. The controller transmits interrogation signals and receives echo signals via the transmitter / receiver (42). Obviously, if the controller is installed in each sensor 30a-e (as shown in figure 1), then a plurality of the transmitting and receiving units (42) is distributed on the motor vehicle. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a plurality of the transmitting and receiving units (42) distributed on the motor vehicle of King, if the controller (40) is installed in each sensor 30a-e.

Claim 7 recites a method for practicing the system of claim 1 and therefore rejected for the same reasons.

Claims 8 and 10 further comprises of "checking an echo profile of the echo signal {col. 2, lines 50-61} and determining at least one of the distance and a change in the distance" {col. 3, lines 37-55}.

Claim 11 further comprises one of a microwave signal and radar signal that is greater than 1 GHz {col. 2, lines 19-22}.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of USP 6,353,776 (Röhrl et al), and further in view of US 5,956,259 (Hartsell, Jr. et al).

In claim 5, King does not disclose the evaluation unit / controller (42) **triangulates** the echo signal received by each of the plurality of the transmitting and receiving units to determine the location of the code transmitter with respect to the transmitting and receiving unit. Determining the location of a mobile object with triangulation techniques is conventional as evidenced by Hartsell {Hartsell, col. 9, lines 9-44} and would have been obvious in the system of King to one of ordinary skill in art.

The systems of King and Hartsell are analogous art because they are from similar problem solving area, distance determination using wireless communication. Hartsell teaches of **triangulation techniques** for determining the distance between a vehicle (1B) and a plurality of fueling stations (10A-10D) {Hartsell, col. 9, lines 9-44}. Hartsell suggests triangulation requires at least two antennas {Hartsell, col. 9, lines 35-

37}. This is to ensure that the owner of the vehicle 1B is charged the correct amount when fueling and not charged the amount vehicle 1D or vehicle 1A has incurred. On the other hand, King suggests as an alternative, to have a controller (40) installed in each sensors 30a-e to generate distance and scenario profiling in each sensor {King, col. 2, lines 59-61}. The system of King has more than two antennas and obviously adapted for triangulation techniques by comparing the magnetic fields in each sensor 30a-e. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have the evaluation unit / controller (42) **triangulate** the echo signal (as evidenced by Hartsell, Jr. et al) received by each of the plurality of the transmitting and receiving units (30a-e) to determine the location of the code transmitter with respect to the transmitting and receiving unit by comparing the magnetic fields in each sensor 30a-e, because this will ensure that only the door that the owner of the vehicle (20) approach will unlock.

10. Claims 6 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of USP 6,353,776 (Röhrl et al), and further in view of US 4,723,121 (van den Boom et al).

In claim 6, King does not disclose a plurality of the code transmitters, each of the plurality of code transmitters transmitting different modulated echo signals; and wherein the evaluation unit evaluates and prioritizes the different modulated echo signals. However, these claim limitations would have been obvious in the system of King, to one

of ordinary skill in the art. It is desirable to have a plurality of code transmitters in the system of King in case the single code transmitter gets lost or misplaced. In which case, the owner of a vehicle can still open the vehicle doors or drive the vehicle, to one of ordinary skill in the art. Unfortunately, keys get misplaced during emergencies. As evidenced by van den Boom, multiple electronic keys 10' and 10" (code transmitters) can be associated with a lock 20 wherein the relationship of the lock to the keys can be tailored {van den Boom, col. 10, lines 7-21}. The systems of King and van den Boom are analogous art because they are from same field of endeavor, vehicle-locking apparatus. Therefore, at the time of the invention, it would been obvious to one of ordinary skill in the art to have plurality of code transmitters in the system of King wherein the relationship of each code transmitter with the lock can be tailored (as evidenced by van den Boom), because in case the single code transmitter gets lost or misplaced, the owner of a vehicle can still open the vehicle doors or drive the vehicle.

Claim 9 recites a method for practicing the system of claims 1 and 6 and therefore rejected for the same reasons, further comprising a plurality of the transmitting and receiving units that evaluates the echo signal {col. 2, lines 28-36; col. 3, lines 48-55}.

11. Claims 1-2, 7-8 and 10-11, are rejected under 35 U.S.C. 102(e) as being anticipated by USP 6,438,466 (Voigtlaender et al).

In claims 1 and 2, Voigtlaender et al discloses an anti-theft protection system for a motor vehicle {see whole document}, the anti-theft protection system comprising:

a transmitting and receiving unit (10) adapted to be arranged on the motor vehicle {col. 2, lines 54-67}, the transmitting and receiving unit transmitting a transmitted signal that is modulated over a broad bandwidth {paragraph bridging cols. 5 and 6};

a code transmitter (16) adapted to be portable with respect to the motor vehicle, the code transmitter transmitting an echo signal at least in response to receiving the transmitted signal {col. 3, lines 41-54}, wherein the echo signal includes an authorization code {col. 1, lines 54-56; col. 3, lines 14-18}; and

an evaluation unit/controller (12) operable to determine a distance between the code transmitter and the receiving unit based on the echo signal and to evaluate the echo signal to verify the authorization code supplied from the code transmitter (16) if a distance between the code transmitter and the transmitting and receiving unit (10) is determined to be above a threshold value {paragraph bridging cols. 4 and 5}.

With regards to claims 3 and 4, a plurality of the transmitting and receiving units (10) adapted to be distributed on the motor vehicle as shown in figure 2.

Claim 7 recites a method for practicing the system of claim 1 and therefore rejected for the same reasons.

Claims 8 and 10 further comprises of checking an echo profile of the echo signal and determining at least one of the distance and a change in the distance {col. 5, lines 18-32}.

Claim 11 further comprises one of a microwave signal and radar signal that is greater than 1 GHz {col. 5, lines 50-67}.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US USP 6,438,466 (Voigtlaender et al) in view of US 5,956,259 (Hartsell, Jr. et al).

In claim 5, Voigtlaender does not disclose **triangulating** the echo signal received by each of the plurality of the transmitting and receiving units to determine the location of the code transmitter with respect to the transmitting and receiving unit. However, determining the location of a mobile object with triangulation techniques is conventional, as evidenced by Hartsell {Hartsell, col. 9, lines 9-44} and would have been obvious in the system of King to one of ordinary skill in art.

The systems of Voigtlaender and Hartsell are analogous art because they are from similar problem solving area, distance determination using wireless communication. Hartsell teaches of **triangulation techniques** for determining the distance between a vehicle (1B) and a plurality of fueling stations (10A-10D) {Hartsell, col. 9, lines 9-44}. Hartsell suggests triangulation requires at least two antennas {Hartsell, col. 9, lines 35-37}. This is to ensure that the owner of the vehicle 1B is

charged the correct amount when fueling and not charged the amount vehicle 1D or vehicle 1A has incurred. On the other hand, King suggests as an alternative, to have a controller (40) installed in each sensors 30a-e to generate distance and scenario profiling in each sensor {King, col. 2, lines 59-61}. The system of Voigtlaender has more than two antennas and obviously adapted for triangulation techniques by comparing the magnetic fields in each sensor 30a-e. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have the evaluation unit / controller (42) **triangulate** the echo signal (as evidenced by Hartsell, Jr. et al) received by each of the plurality of the transmitting and receiving units (30a-e) to determine the location of the code transmitter with respect to the transmitting and receiving unit by comparing the magnetic fields in each sensor 30a-e, because this will ensure that only the door that the owner of the vehicle (20) approach will unlock.

13. Claims 6 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US USP 6,438,466 (Voigtlaender et al) in view of US 4,723,121 (van den Boom et al).

In claim 6, Voigtlaender does not disclose a plurality of the code transmitters, each of the plurality of code transmitters transmitting different modulated echo signals; and wherein the evaluation unit evaluates and prioritizes the different modulated echo signals. However, these claim limitations would have been obvious in the system of Voigtlaender, to one of ordinary skill in the art. Keys get misplaced during emergencies. As evidenced by van den Boom, multiple electronic keys 10' and 10'' (code transmitters)

can be associated with a lock 20 wherein the relationship of the lock to the keys can be tailored {van den Boom, col. 10, lines 7-21}. Clearly, it is desirable to have a plurality of code transmitters in the system of Voigtlaender, in case the single code transmitter gets lost or misplaced. In which case, the owner of a vehicle can still open the vehicle doors or drive the vehicle. The systems of Voigtlaender and van den Boom are analogous art because they are from same field of endeavor, vehicle-locking apparatus. Therefore, at the time of the invention, it would been obvious to one of ordinary skill in the art to have plurality of code transmitters in the system of Voigtlaender wherein the relationship of each code transmitter with the lock can be tailored (as evidenced by van den Boom), because in case the single code transmitter gets lost or misplaced, the owner of a vehicle can still open the vehicle doors or drive the vehicle.

Claim 9 recites a method for practicing the system of claims 1 and 6 and therefore rejected for the same reasons, further comprising a plurality of the transmitting and receiving units that evaluates the echo signal {col. 2, lines 28-36; col. 3, lines 48-55}.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USP 6,693,581 (Gottwald et al) is cited in that it teaches of a data transmitting and receiving unit comprising a radar unit for determining distance and data unit for exchanging data with a code transmitter {see whole document}.

USP 6,414,626 (Greef et al) is cited in that it teaches of a data transmitting and receiving unit comprising a distance determining unit based on echo signals {see whole document}.

Examiner Contact Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bangachon whose telephone number is (571)-272-3065. The examiner can normally be reached on 4/4/10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571)-272-3068. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314 for regular and After Final formal communications. The examiner's fax number is (571)-273-3065 for informal communications.

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

William L Bangachon
Examiner
Art Unit 2635

November 10, 2004

MICHAEL HORABIK
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